

ABSTRACT

5 The present invention provides an apparatus, system and method for
transmitting asynchronous transfer mode (ATM) data cells on an ATM adaptation
layer (AAL) configured connection within an ATM system comprising a digital
signal processor (DSP) sub-system (160) and a host processor (190). The
transmitter interfaces directly with the DSP sub-system (160) (which converts the
10 digitized voice samples into voice signals) and the host processor (190) (which
performs AAL2 signaling and layer management functions). The transmitter is
configured to interleave AAL2 voice packets from the DSP sub-system (160) and
signaling and management packets from the host processor (190) on an ATM
connection. Data is fetched by DMA(s) (415). A channel look-up table uses the
15 DSP assigned voice channel as an index into the table to map a voice channel to
the ATM connection.